# CalESCO

# CALIFORNIA EARTH SCIENCE CORPORATION CTR-133780

1318 SECOND STREET, SUITE 27 / SANTA MONICA, CALIFORNIA 90401 / TELEPHONE 395-4528, AREA CODE 213

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CONTRACT NAS 2-7698 MONTHLY PROGRESS REPORT NO. 3 AUGUST 1973 "Medo available under MASA sponsorship in the interest of early and wide dissemination of Earth Resources Survey Program information and without liability for any use made thereof."

Fault Tectonics and Earthquake Hazards in the Peninsular Ranges, Southern California, EREP Investigation 463

NASA, Ames Research Center Mail Code 241-1 Moffett Field, CA 94035

Attention: Mr. Gabriel Fox

Contracting Officer

#### Gentlemen:

California Earth Science Corporation (CalESCO) is pleased to submit its 3rd Monthly Progress Report on the application of Skylab imagery to analysis of fault tectonics and earthquake hazards in the Peninsular Ranges, southern California under NASA contract No. NAS 2-7698.

#### Summary Outlook

The principal plans for the immediate future are to continue analysis of images from SL-1/SL-2. The milestone plan provides a time-oriented schedule of the entire effort to be performed.

#### Significant Progress

- 1. The published literature, geologic maps and reports pertaining to the fault tectonics, record of earthquakes, and geologic data on the history and magnitude of fault slip have been reviewed. These data will provide the background for a comparison of the appearance of different faults and tectonic features on the Skylab imagery.
- 2. A map of southern California has been prepared showing all recently active faults, traces of ground rupture and other information pertinent to the interpretation of SL imagery.
- 3. Aircraft and ERTS photographs of the test site are being identified, and obtained.

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- 4. A subcontract with the RAND Corporation was signed on 6 August 1973.
- 5. Imagery from SL1/SL2 190A camera was received in the form of 70 mm positive transparencies. At the time of writing, 9 x 9 transparencies have not been received. Screening film of 192 imagery was also received.
- 6. Analysis of imagery received to date has been initiated. Parts of the San Andreas, Garlock, San Jacinto and Blue Cut faults are clearly shown. Much of southwestern California was obscured by cloud cover.
- 7. Negatives of the 190A positive transparencies have been made, and black and white film calibrations have been accomplished on film to be used as intermediate separations.
- 8. Selected RB57 photos of the test site have been received from the NASA data facility in Houston.

## Expected Accomplishments, Current Month

- 1. Analysis of SL1/SL2 imagery will be continued.
- 2. Psuedocolor transformations from selected bands will be produced.
- 3. The supporting studies will be continued.
- Tapes of selected 192 data will be ordered.

## Travel Summary and Plans

Dr. Donald L. Lamar was in Washington, D.C. during September on other business. However, he discussed the project and exchanged information with Dr. Paul D. Lowman. Plans will be made for field checks during September.

Very truly yours,

CALIFORNIA EARTH SCIENCE CORPORATION

Paul M. Merifield, Ph.D. Principal Investigator

and Menfild

cc: National Aeronautics and Space Administration Scientific and Technical Information Facility, Code KS

Washington D.C. 20546

cc: Mr. John W. Tremor NASA, Ames Research Center Moffett Field, CA 94035

> NASA Manned Spacecraft Center Attn: Martin Miller, Mail Code TF6 Houston, TX 77058

NASA Manned Spacecraft Center Earth Observations Division Attn: V. M. Dauphin, Mail Code TF Houston, TX 77058